Issuing Commands

Natural Studio commands are usually issued via context menus as explained in this section. Several important context menus are shown, and copying and moving via drag-and-drop is explained.

Natural Studio also provides a command line in which you can directly enter Natural system commands. The prerequisite is that a certain logical context is given. For example, the SAVE command can only be executed when a source is currently shown in the editor.

A graphical user interface is not provided for all system commands that are available on the mainframe. When you issue such a command in the command line, terminal emulation will be started in a separate window, showing the corresponding character screen. You can then work in the same way as on the mainframe.

Certain system commands (for example, EDT) are not available in Natural Studio and can therefore not be executed from the command line.

For further information on system commands, refer to the Natural System Command Reference documentation.

The following topics are covered below:

- Context Menus
- Creating User Libraries
- Copying and Moving Objects
- Deleting Objects
- Cataloging Objects
- Displaying the Last Commands
- Listing Objects
- Invoking Terminal Emulation

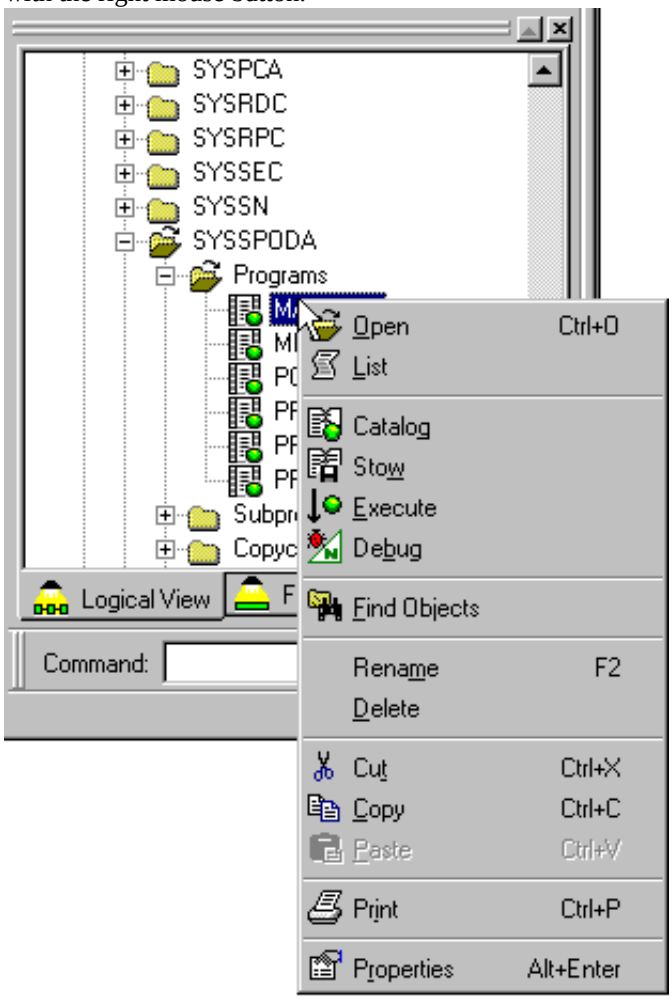
Context Menus

Context menus are invoked using the **right** mouse button. The commands provided in the context menu depend on the object or the position within the Natural Studio window that has been clicked.

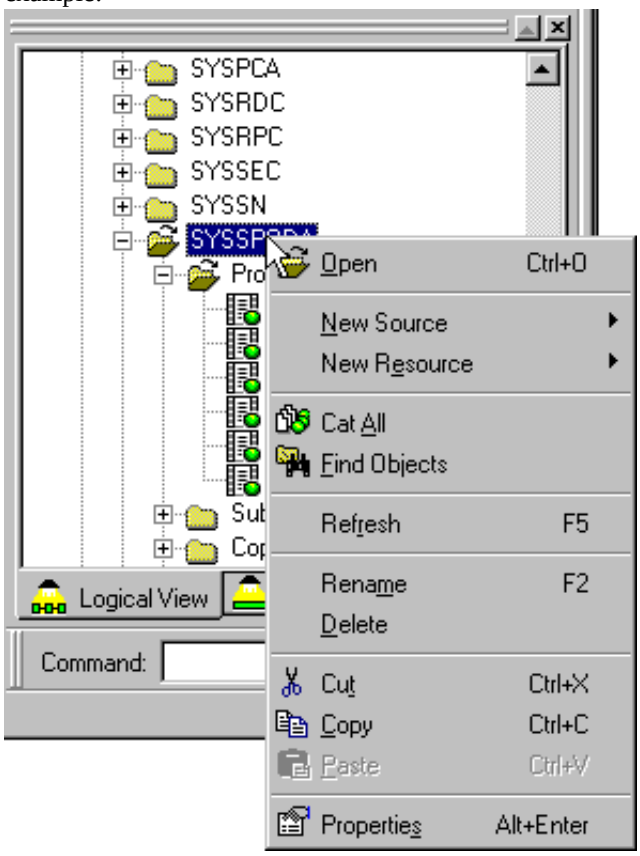
Note:
The menu bar at the top of the Natural Studio window can be customized. Thus when a menu is not shown in the menu bar, you can still issue the commands that apply to the selected object from the context menu.

When you click an element in a tree with the right mouse button, all valid commands for this element are shown in a context menu.

- The following example shows a context menu that has been invoked by clicking the name of a Natural object with the right mouse button.

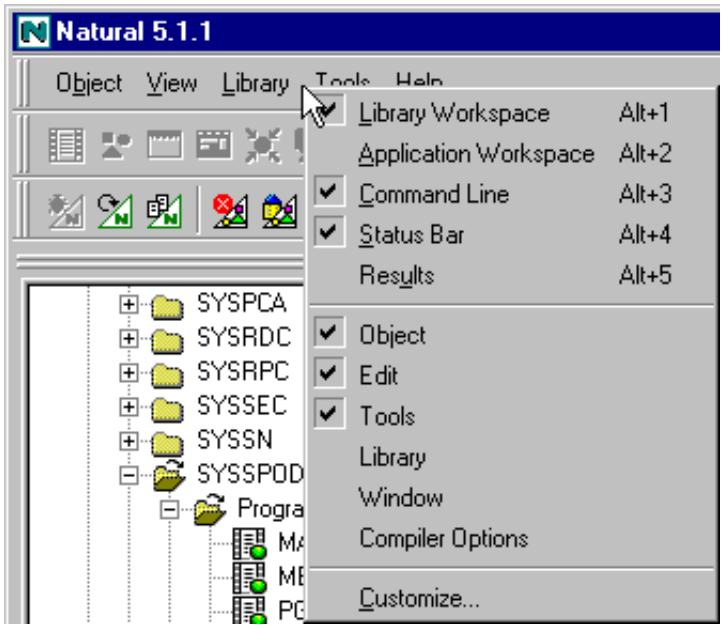


- A different context menu is shown when you click the name of a library with the right mouse button. For example:

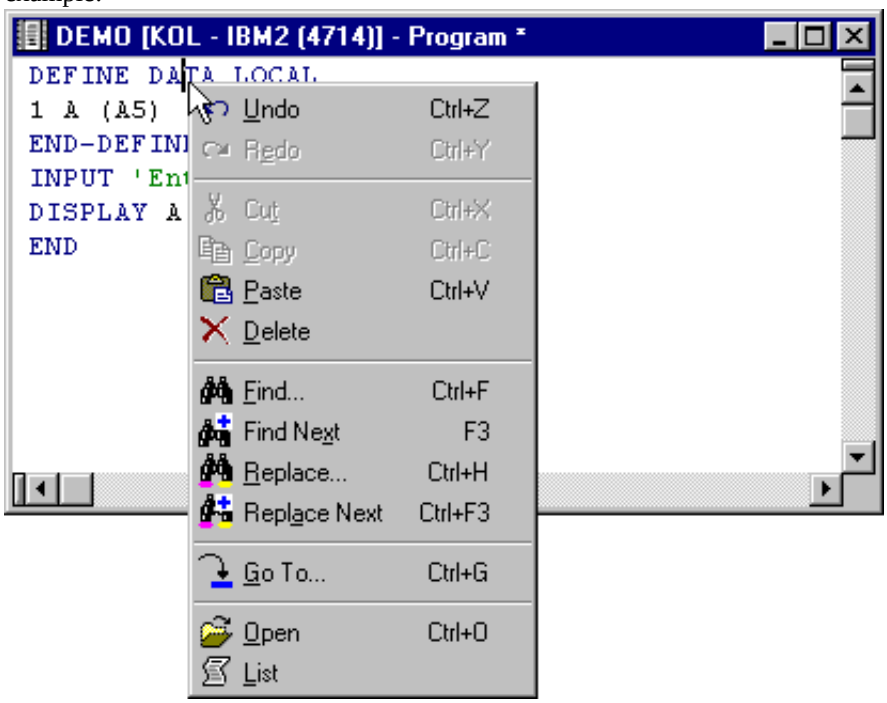


When you click any other position outside the library workspace with the right mouse button, different commands are shown in the context menu.

- The following example shows a context menu has been invoked by clicking the menu bar with the right mouse button:



- A different context menu is shown when you click the right mouse button in a program editor window. For example:



Note:
When a toolbar button or shortcut key is available, this information is shown in the context menu. Commands that are dimmed, are currently not available.

Creating User Libraries

You will now create the following user libraries that will be used later in this tutorial:

- SPODLIB
- SPODADD
- SPODTEST

Make sure to create these libraries in an environment in which a Natural development server has been installed.

To create the user libraries

1. Depending on the current view, you have to select one of the following (below the node of the development server to which you have previously connected):

Logical view:	"User Library"
Flat view:	"FUSER"
File view:	the name of the database

2. From the **Library** menu, choose **New**.
   Or click the right mouse button and from the resulting context menu, choose **New**.
   A new library with the default name USRNEW is now shown in the tree.
   

   The default name is selected so that you can immediately enter a new name. Any text you enter automatically deletes the selection.
3. Specify SPODLIB as the name of the library.
4. Press ENTER
   Or click any other position in the library workspace.
5. Create the libraries SPODADD and SPODTEST as described above.

Copying and Moving Objects

With the following exercises, you will

- copy the contents of the system library SYSSPODA to your user library SPODLIB,
- move all subprograms from library SPODLIB to library SPODADD,
- copy the program PGMCHECK from library SPODLIB to library SPODTEST.

These objects will be used later in this tutorial.

Different methods can be used to copy and move objects:

- menu commands (see **Copy** and **Paste** in the first exercise in this section)
- shortcut keys (see CTRL+C and CTRL+V the first exercise in this section)
- toolbar buttons (see  and  in the first exercise in this section)
- drag-and-drop (see the last two exercises in this section)

To copy the contents of the system library SYSSPODA to the user library SPODLIB

1. Select the system library SYSSPODA.
2. Click the right mouse button and from the resulting context menu, choose **Copy**.
   Or press CTRL+C.
   Or click the following toolbar button:
   
   You can now paste the contents of the library to your user library.
3. Scroll to the user library SPODLIB that you have previously created.
4. Select the user library SPODLIB.
5. Click the right mouse button and from the resulting context menu, choose **Paste**.
   Or press CTRL+V.
   Or click the following toolbar button:
   
   All objects from the system library SYSSPODA are now copied to your user library SPODLIB.

To move all subprograms from the library SPODLIB to the library SPODADD using drag-and-drop

1. Make sure that logical view is active.
2. Click the plus sign next to the library SPODLIB to expand the tree.
3. Click the "Subprograms" node and hold down the mouse button.
4. Drag the selected object to the name of the node SPODADD.
5. Release the mouse button.
   All subprograms are now moved to the library SPODADD.

To copy the program PGMCHECK from the library SPODLIB to the library SPODTEST using drag-and-drop

1. Make sure that flat view is active.
   Thus you need not open the folder containing all programs which is provided in logical view.
2. Under the node FUSER, click the plus sign next to the library SPODLIB to expand the tree.
3. Click the program PGMCHECK and hold down the mouse button.
4. Hold down CTRL.
5. Drag the selected object to the name of the node SPODTEST.
6. Release the mouse button and then CTRL.
   The program is now copied to the library SPODTEST.

Note:
When you move an object, you cut it at its original position and paste it at a new position. To copy an object, press CTRL while dragging. This does not cut the object at its original position.

Deleting Objects

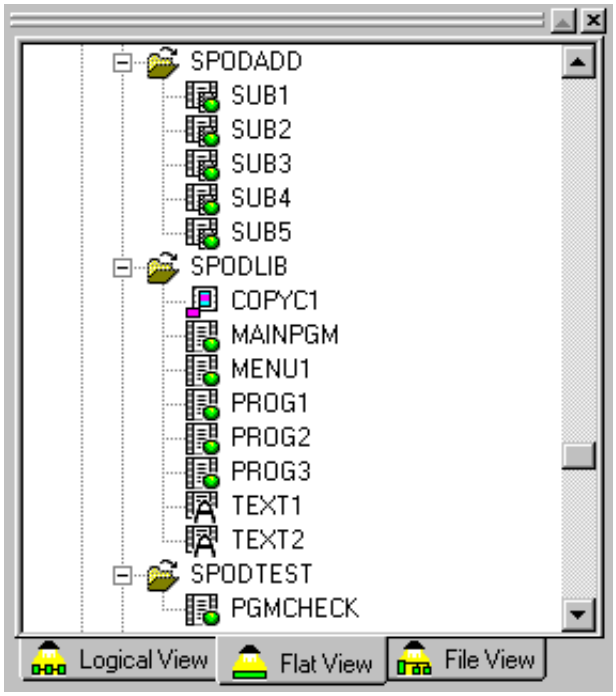
Since you have copied the program PGMCHECK in the previous exercise, it is available in two libraries. You will now delete this program from the library SPODLIB. This exercise assumes that flat view is still active.

To delete the program PGMCHECK from the library SPODLIB

1. Under the node for the library SPODLIB, select the program PGMCHECK.
2. From the **Object** menu, choose **Delete**.
   Or click the right mouse button and from the resulting context menu, choose **Delete**.
   A dialog box appears, asking whether you really want to delete the program.
3. Choose the **Yes** button to delete the program.

Note:
You can switch off display of delete messages. From the **Tools** menu, choose **Options**. In the resulting dialog box, display the "Workspace" tab, deselect the "Display delete messages" check box and choose the **OK** button.

With all nodes expanded in flat view, your new libraries should now look as follows:



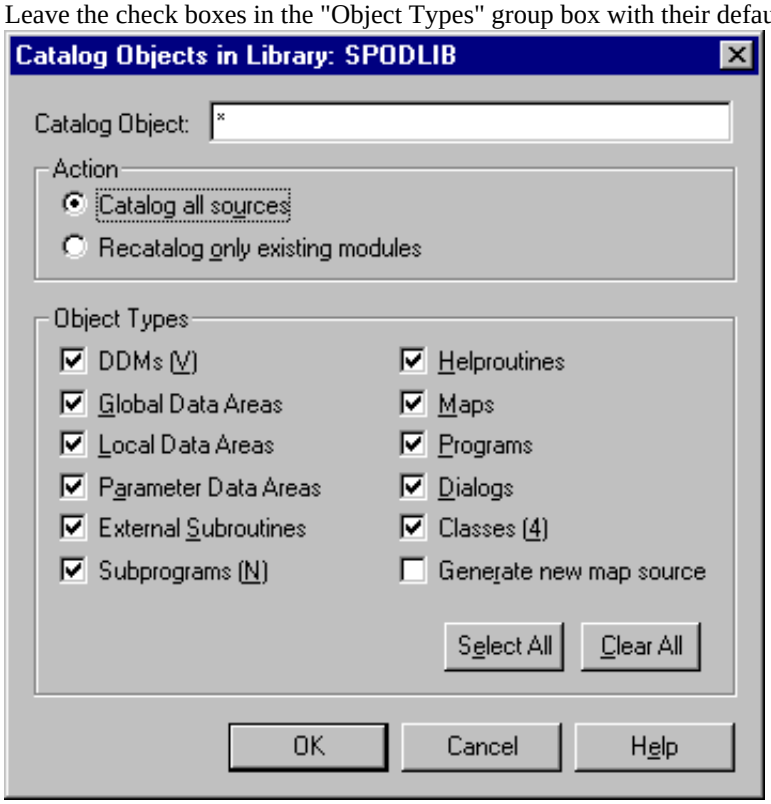
Cataloging Objects

CATALL is one of the Natural commands for which a graphical user interface is provided in Natural Studio.

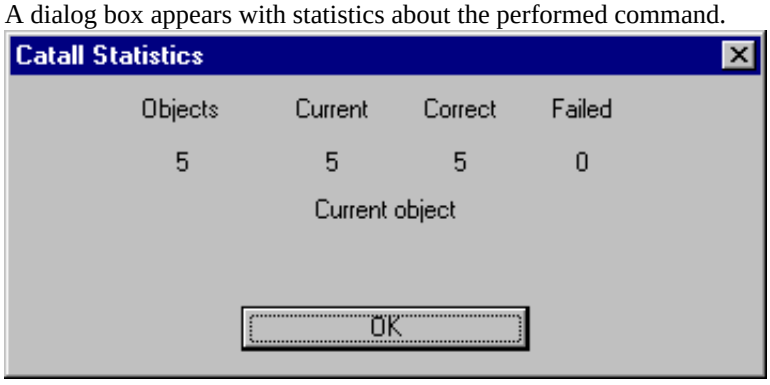
You will now catalog the objects of the libraries you have just created.

To catalog all objects in a library

1. Select the library SPODLIB.
2. From the **Library** menu, choose **Cat All**.
3. Or click the right mouse button and from the resulting context menu, choose **Cat All**.
   The "Catalog Objects in Library: *libraryname*" dialog box appears.
4. Make sure that the option button "Catalog all sources" is selected.
   Leave the check boxes in the "Object Types" group box with their default settings.



5. Choose the **OK** button.
   A dialog box appears with statistics about the performed command.



6. Choose the **OK** button to close the dialog box.
   A dialog box appears, informing you that cataloging was successful.

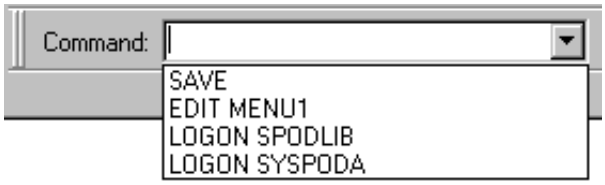
7. Choose the **OK** button to close the dialog box.
8. Repeat the above steps for the libraries SPODADD and SPODTEST.

Note:
You can switch off display of success messages. From the **Tools** menu, choose **Options**. In the resulting dialog box, display the "Workspace" tab, deselect the "Display success messages" check box and choose the **OK** button.

Displaying the Last Commands

Natural commands can be executed from the drop-down list box of the command line.

Natural Studio saves each character string you enter in the command line for the current session. The drop-down list box contains your last entries. You can select an entry and press ENTER to execute it once more.



When you enter the first character of a command that you have previously entered, the corresponding command is automatically copied to the command line. In this case, you just have to press ENTER to execute it.

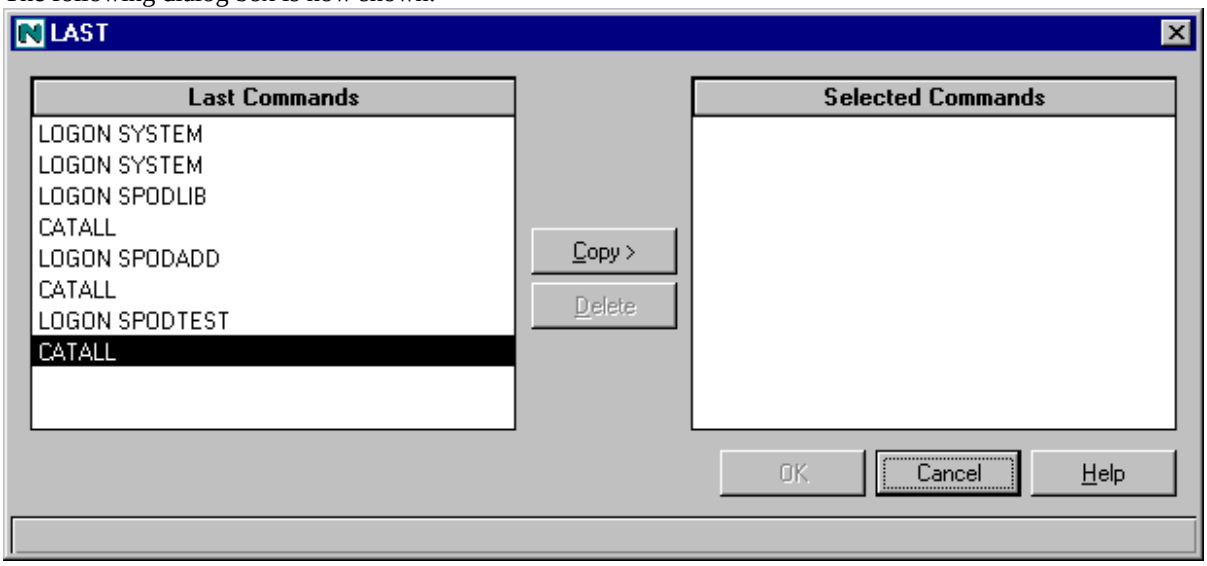
When the mouse pointer is positioned on the command line, you can use the right mouse button to invoke a context menu. Using the commands from this context menu, you can, for example, paste a text string in the command line.

The LAST * command is an example of a Natural command for which a menu command is not provided with Natural Studio. In contrast to the commands that you enter in the command line, the LAST * command displays all system commands in the order in which they were entered in a dialog box. It considers all Natural commands that were issued during a session: for example, when you click a library to log on to it, or when you execute a program using a menu command, toolbar button or shortcut key. Furthermore, it allows you to select several commands to be executed one after the other (see below).

If the command line is not shown in the Natural Studio window, display it as described previously in Displaying the Command Line.

To execute the LAST * command from the command line

1. Enter the following command in the command line and press ENTER:
   LAST *
   The following dialog box is now shown:



2. On the left, select the first command that you want to execute.
3. Choose the **Copy** button.
   The selected command is now shown on the right.
4. Optionally. Modify the command on the right (for example, specify another library name with the LOGON command).
5. Repeat the above steps to copy all commands that you want to execute to the right.
   The commands will be executed in the same sequence in which they appear in the list.
6. Choose the **OK** button to execute all selected commands one after the other.

Listing Objects

You will now list the objects contained in one of the libraries you have previously created. You can do this in two different ways:

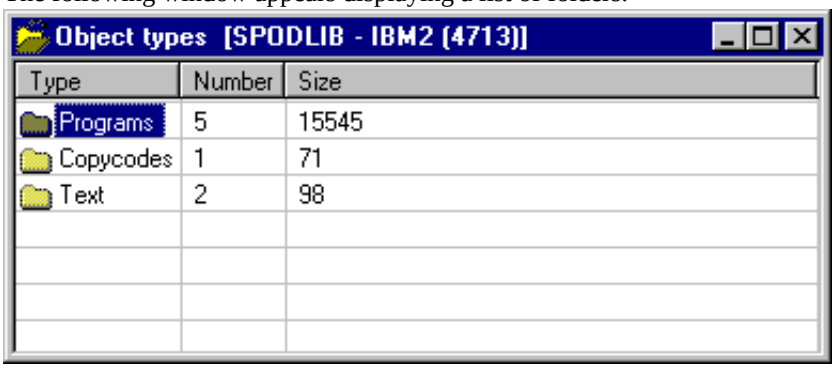
- choose **Open** from the context menu, or
- enter the `LIST *` command in the command line

When using the **Open** command, the contents of the window depends on the current view. For example, in logical view, all folders are shown, and in flat view all objects are shown.

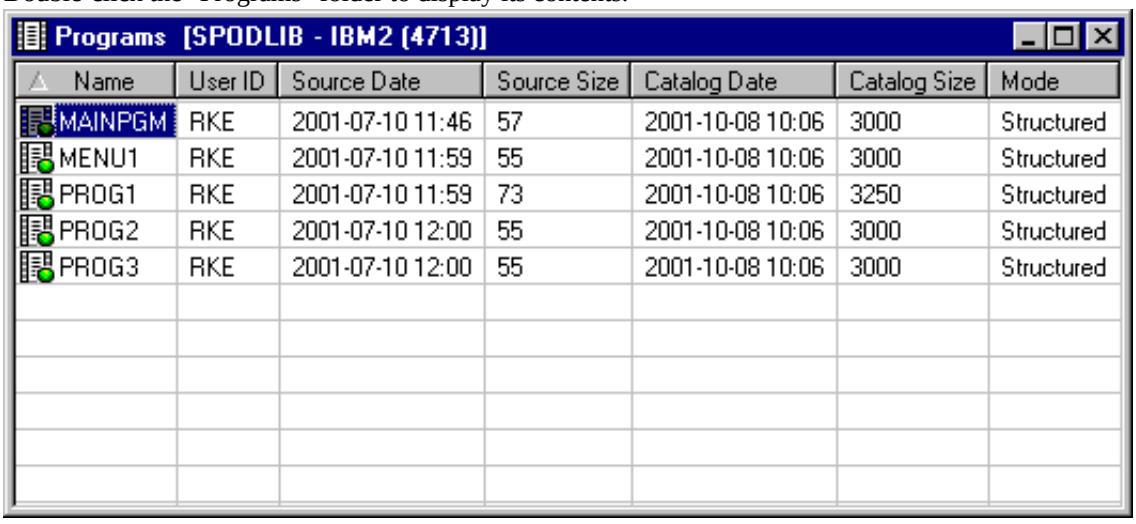
When entering `LIST *` in the command line, all objects of a library are shown. The contents of the resulting window is always the same. The current view is not considered. An advantage of the `LIST` command is that you can also specify that only objects starting with a specific letter are shown (e.g. `LIST P*`).

To list all objects in a library with the Open command

1. Make sure that logical view is active for this exercise.
2. Select the library SPODLIB in the library workspace.
3. Click the right mouse button and from the resulting context menu, choose **Open**.
   The following window appears displaying a list of folders.



4. Double-click the "Programs" folder to display its contents.



5. To change the display sequence, click the column header "Source Date".
   An arrow is now shown in this column header indicating the current display sequence.
6. Click the column header "Source Date" once more.
   This toggles between ascending and decending display sequence.
7. Close each of these two windows by clicking the standard close button at the top right of a window.

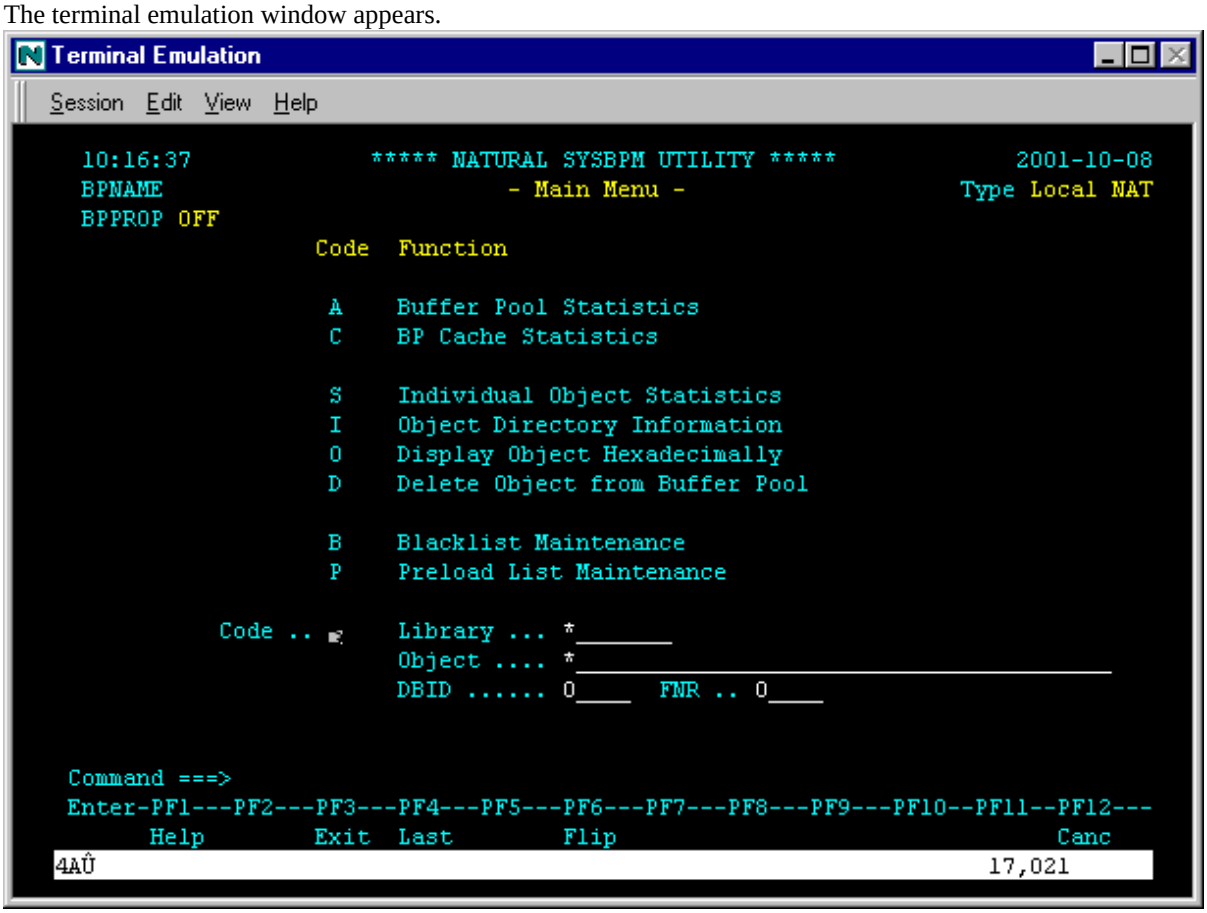
Invoking Terminal Emulation

SYSBPM is a Natural utility for which a graphical user interface is not provided in Natural Studio. When you invoke this utility, its character-based mainframe screen is shown in a terminal emulation window.

Note:
As long as terminal emulation is active, you cannot work with Natural Studio.

To invoke the SYSBPM utility in a terminal emulation window

1. Enter the following command in the command line:
   `SYSBPM`
   The terminal emulation window appears.



   You can now use the utility in the same way as on the mainframe. Command buttons are provided for frequently-used PF keys. When they are not shown, you can display them as described with the following step.
2. From the **View** menu, choose a PF-key set (for example, **PF Keys 1-12**) to display the command buttons for the PF keys.
3. To terminate terminal emulation, issue the EXIT command (either by issuing it in the command line or by pressing the corresponding PF key).

You can now proceed with the next exercise: Handling Programs.

